Proton's only comment about the pass was he didn't recall the speed of the half-flap approach being as quick as it was. I recovered for my OK-3 after I had dumped down and was hooked in.

Troubleshooters found Proton's mask had a short in the mike cord. It had disconnected after the launch. The engine had leaked oil all over the engine bay.

The lessons learned were many. King had awesome situational awareness. They saw the 7600 squawk and then the 7700 and took action. Although we are experienced aviators, we still had some minor communication problems. I could have done better by remembering basic night signals. We train to transition the gear via a voice call. Maybe we should practice the light signals more often. The coordination between our sections was superb. The other section realized they needed to get out of the way and to provide whatever help they could. The emergency aircraft has the lead; do what he wants. In this situation, it would have been easy to direct the action, rather than listen. Just because your emergency aircraft needs to do a low-fuel-weight approach at half flaps doesn't mean you have to. Full flaps will help you fly at lower speeds even with a heavier weight. Coordination, especially with the ship, needs to be done ASAP. With our recovery being the last of the night, they could respond quickly. Time from first emergency to 302 on deck was about 20 minutes—not bad for a separated section about 80 miles from the ship. Keep the controllers on the ship in the loop. Had the information not been flowing, there undoubtedly would have been questions about configurations, time and fuel.

Cdr. Bohnstedt (squadron XO) and Lt. McLaughlin fly with VFA-151.

A CRM Analyst's Take: An Adaptability/Flexibility Portrait

By LCdr. Mike Reddix

CRM is a set of interrelated skills, and just like the brush strokes of a masterpiece, they work together to form a pleasant reality. The reality in this case being an OK 3-wire by a wingman who discovered he was NORDO with a poorly-performing engine 80 miles from the boat. How did this develop? The airborne controller developed time-critical *situational awareness* (SA). A follow-on, and necessarily *assertive*, "knock-it-off" call by the controller proved to be the wake-up lead needed to get into the game, assist in building an accurate SA picture of his wingman's predicament, and *lead* the effort to establish effective *communication* between all the players (controller, wingman, lead, and the ship). Pilots in the opposing section made a good *decision* to display *functional leadership*. They backed up the other section with NATOPS gouge and allowed them to concentrate on other aspects of their brewing emergency. Good mission planning (*mission analysis* in CRM speak) and training gave this crew a fall-back communication plan that they executed well.

This recovery was the result of good headwork and great across-the-board CRM, and could easily stand on its own merits as an example of any of the seven critical CRM skills. However, the real take-home message from this potential mishap is a*daptability and flexibility*. This section (and other players) altered their course of action based on new information (remember that good SA and assertive communication refocused the section). All of the players acted constructively under pressure and demonstrated leadership (including functional leadership by the opposing section). They implemented a backup plan by using effective communication and making timely decisions. Their real-time SA also indicated successful adaptation to a rapidly changing flight environment. Imagine the final portrait of this mission had each player not adapted to the changes. A failure at any CRM level could have created a domino effect of eroding communication, poor SA, bad decisions and…possibly disaster.

LCdr. Reddix is the CRM program representative at the Naval Safety Center.

Photograph by PHC Johnny R. Wilson

Who Are We?

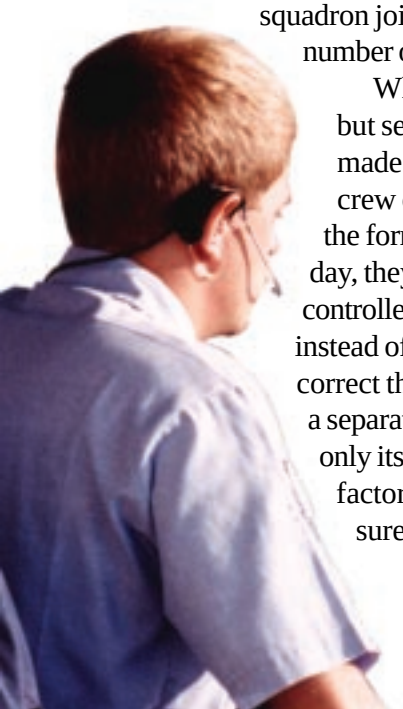
By LCdr. Tony Pham

As controllers, E-2 NFOs understand the duties involved in airspace management. They often control numerous aircraft in confined airspace, and they must therefore have a good sense of situational awareness (SA) of the air environment. However, every now and then, the table is turned, and their SA can disappear quickly if they lose sight of the big picture. The table turned on one of our flights near home field.

We were returning to NAS Point Mugu from a training flight. We had been flying formation from our home field to the Grand Canyon. Since we don't often fly form, we were looking forward to this flight. It would take us for a sightseeing tour of the Grand Canyon, and since the three moles in the back rarely get to look outside, we were all happy to be on this hop.

On the way to the Grand Canyon, Banger 1 was a flight of two. Our lead aircraft was 602, and we were 601. Aside from our ACO getting a little airsick, the flight to the Grand Canyon went smoothly. We saw some awesome scenery, and the front-end even got some practice approaches at a nearby airfield.

Banger 1 now was heading back from the Grand Canyon. It was much better for our ACO on the way back, since we were the lead. Everything was fine until we checked in with our local approach controller. Although we checked in as Banger 1, the weather had deteriorated so we decided to break up the form flight. We used our individual call signs (Banger 602 and 601) and shot individual approaches and recoveries. As the controller assigned us headings and altitudes, another E-2 from a sister squadron joined the pattern; it also had a side number of 602.



What happened next was comical, but seasoned crews shouldn't have made such idiotic mistakes. Since the crew of Banger 602 had been using the formation call sign of Banger 1 all day, they inadvertently had answered the controller's instructions, using Banger 601 instead of 602. Then, before anyone could correct the mistake, aircraft 602 answered a separate controller's instructions, using only its side number. The confusion factor elevated. Banger 601 was not sure if Banger 602 was trying to correct their previous mistake, or if another 602 was answering a separate set of instructions. The controller also was confused on which 602 had answered his last set of instructions. The back-end crews in Banger 602 and 601 had not been paying attention to the radio tuned by the pilots and could not sort out the picture.

Images of Abbott and Costello's classic "Who's on first?" routine flashed in our minds. Visions of a midair, however, meant that it was not really funny. Our pilot-in-command still had some SA left and the presence of mind to get on the radio and said, "Banger 601, squawking 5132, on the 100 radial, heading 130, at 3,500 feet." That one call quickly helped everyone regain their SA. The controller immediately followed with new instructions for everybody, and all aircraft responded with complete call signs (using correct side numbers).

A lesson learned that day was to keep comms simple whenever possible. We should not have used any call sign, other than our side number. Furthermore, always use your complete call sign. We are all part of the crew. The backenders always should listen up to the pilot's radio during the approach phase to help sort out the picture and provide backup. Fly as a team.

LCdr. Pham is the safety officer in VAW-117.